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HARDWARE
COMPUTER
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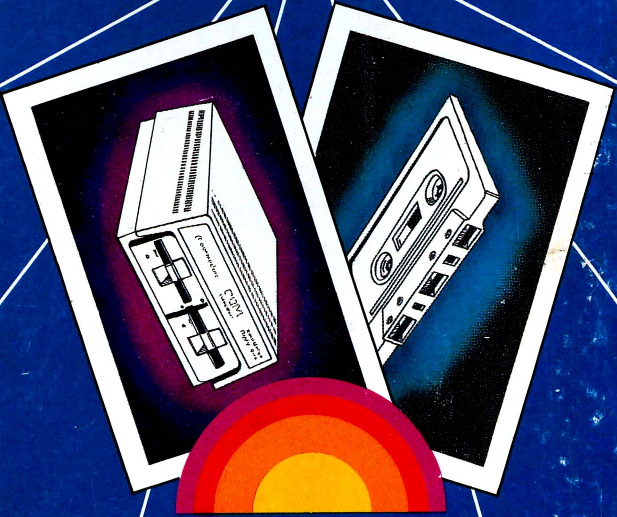

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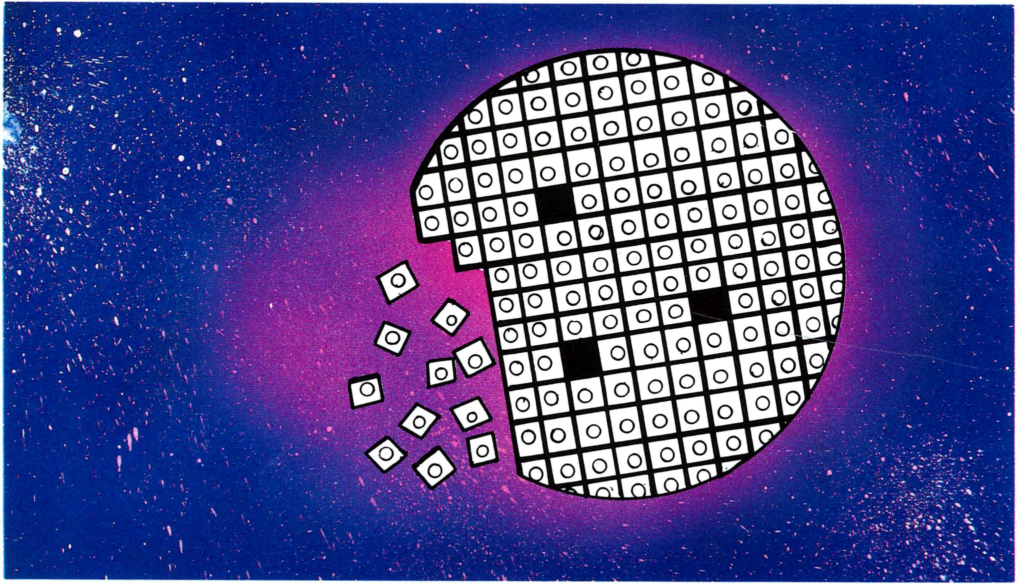
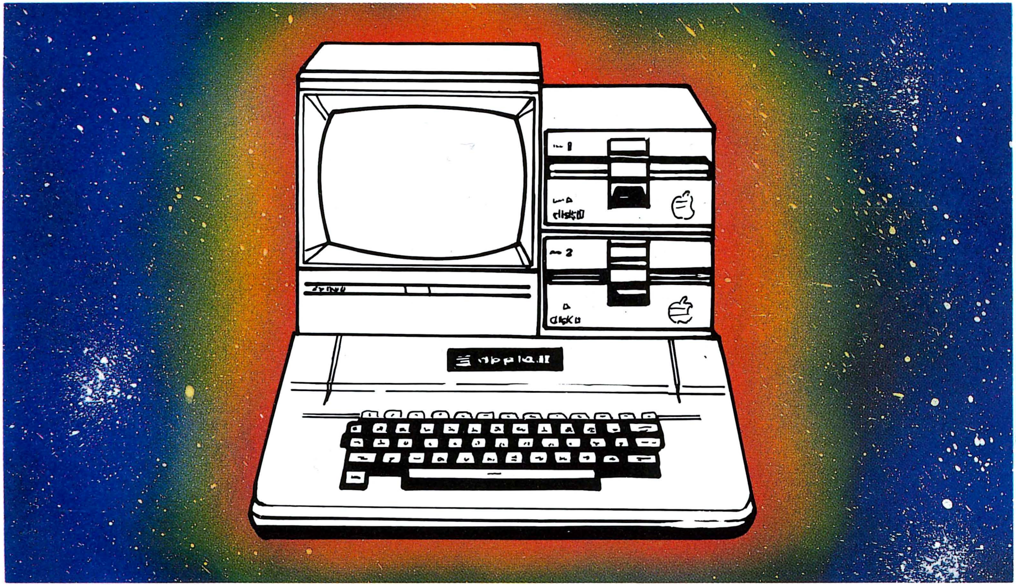


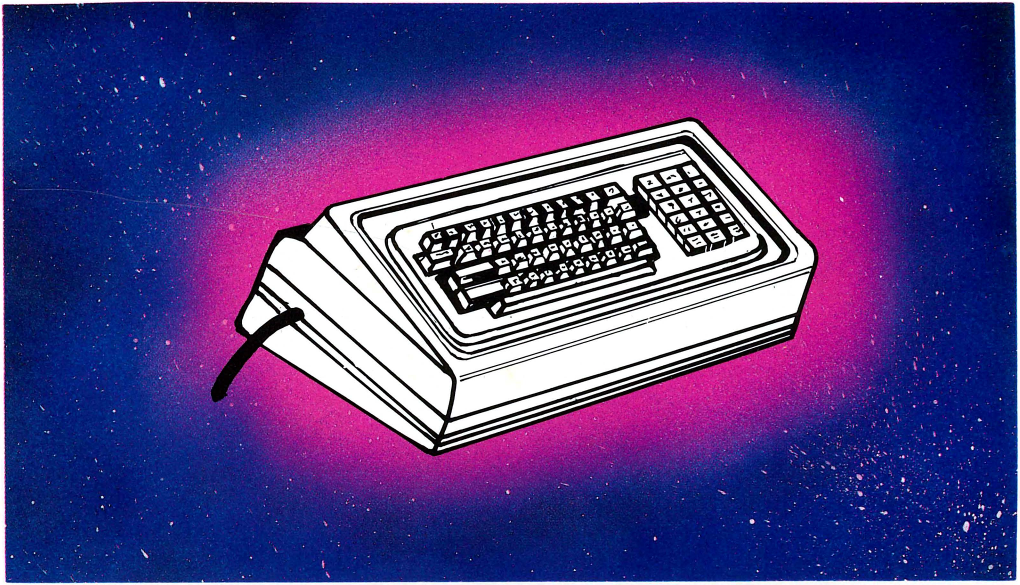
CHIPS —

A SHORT NAME FOR INTERGRATED CIRCUITS. AN INTERGRATED CIRCUIT IS A TINY CHIP OF A SUBSTANCE CALLED SILICON ON WHICH THERE ARE THOUSANDS OF ELECTRONIC COMPONENTS PACKED CLOSELY TOGETHER. THE CIRCUITS ARE IMPLANTED ON SLICES OF SILICON AND LATER CUT UP INTO CHIPS WITH A DIAMOND OR LASER SAW. THE DEVELOPMENT OF CHIPS HAVE MADE SMALL COMPUTERS POSSIBLE.



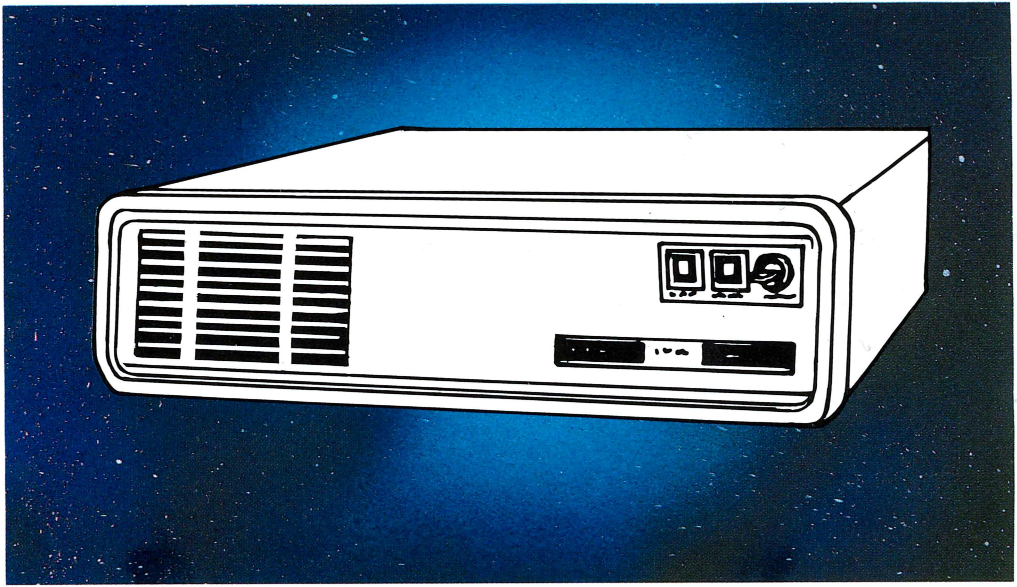
MICROCOMPUTER —

A MICROCOMPUTER IS NOT AS POWERFUL AS A LARGER COMPUTER BUT IT IS EASIER TO USE AND TO UNDERSTAND. A "MIRCO" USUALLY INCLUDES A MICROPROCESSING UNIT, A KEYBOARD, A STORAGE DEVICE, EITHER CASSETTE TAPE RECORDER OR DISK DRIVE, AND A TV LIKE SCREEN FOR DISPLAYING RESULTS.



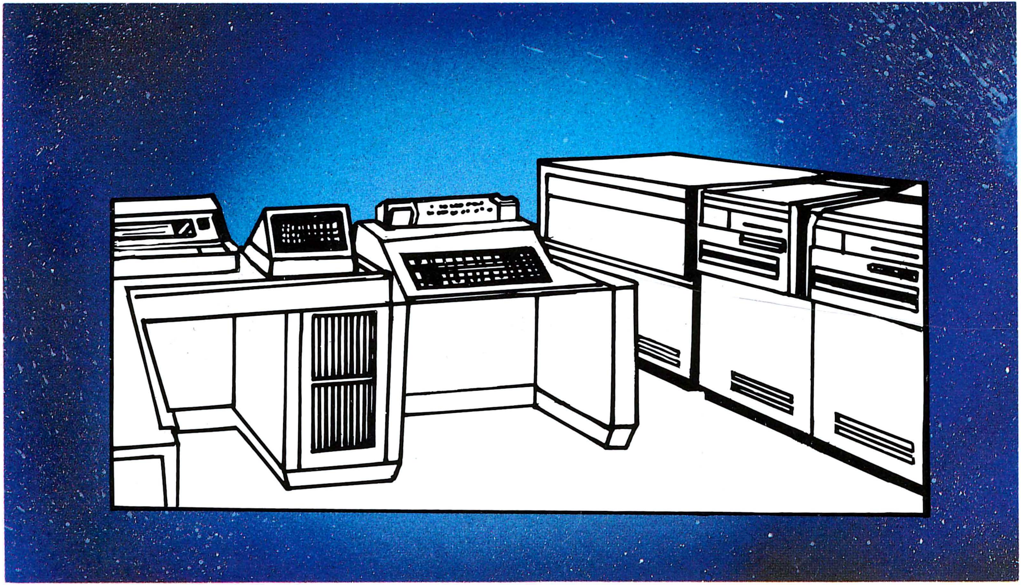
KEYBOARD —

THE KEYBOARD IS USED TO COMMUNICATE WITH THE COMPUTER. IT IS SET UP MUCH LIKE A TYPEWRITER BUT HAS A SET OF INSTRUCTION KEYS TO TELL THE COMPUTER WHAT TO DO WITH THE INFORMATION THE USER IS GIVING IT. IT MAY BE ATTACHED TO THE VISUAL DISPLAY SCREEN OR SIT AS A SEPARATE UNIT.



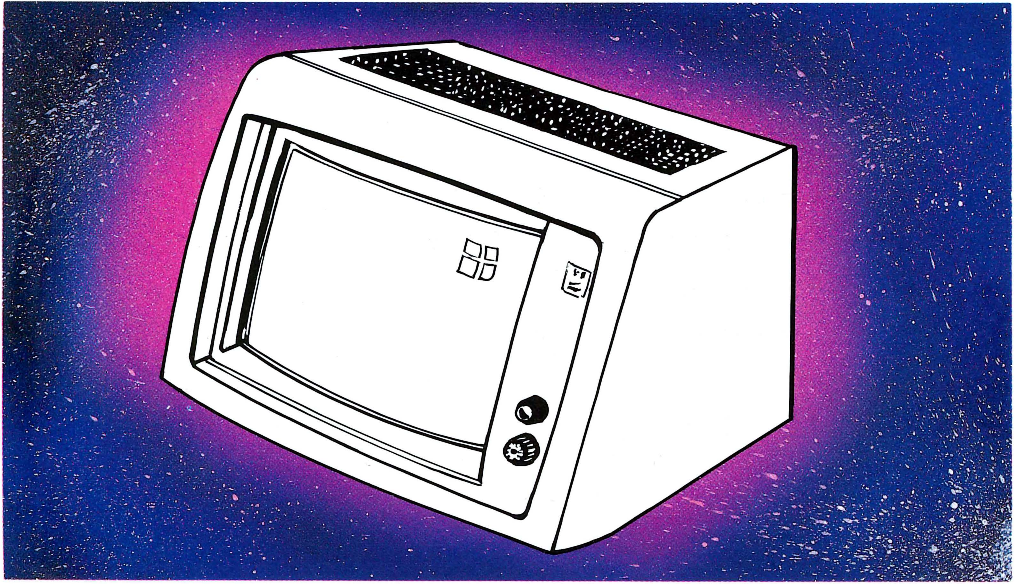
HARD DISK DRIVE —

INFORMATION FOR THE COMPUTER CAN BE STORED ON A HARD DISK. A HARD DISK DRIVE ENABLES THE USER TO RETRIEVE INFORMATION AND RECORD NEW INFORMATION ON TO A HARD DISK.



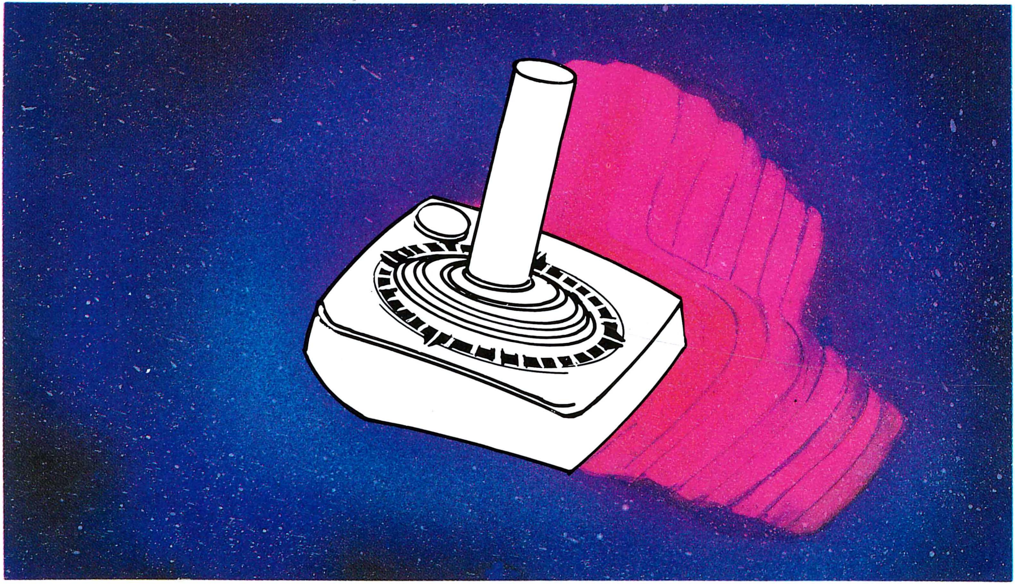
MINICOMPUTERS —

MINICOMPUTERS ARE SMALLER THAN MAINFRAMES AND ARE NOT AS POWERFUL OR AS FAST. MINICOMPUTERS ARE GENERALLY USED FOR ONE TYPE OF WORK.



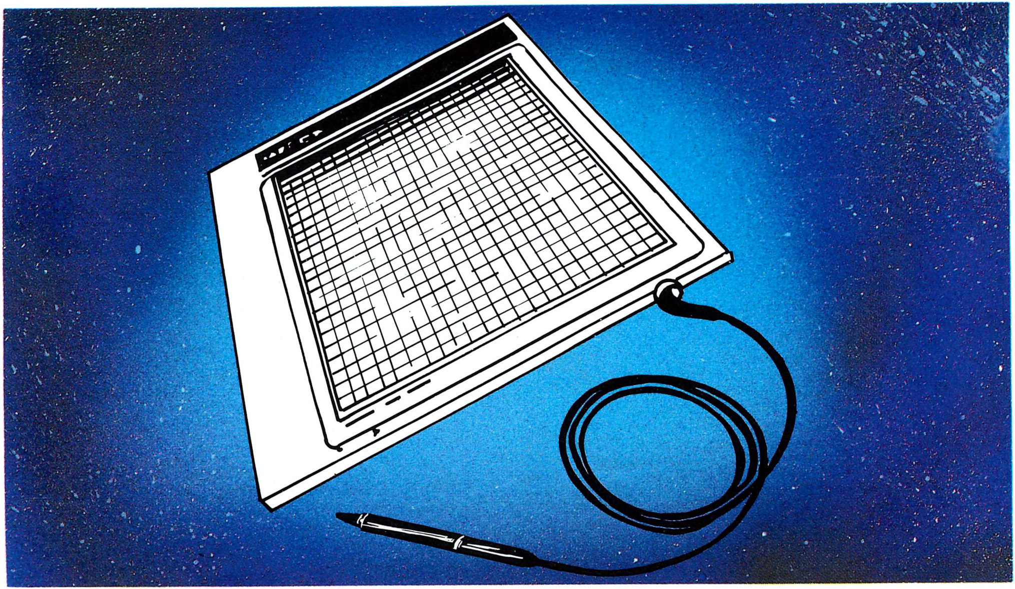
VISUAL DISPLAY SCREEN –

THE VISUAL DISPLAY SCREEN IS A VIEWING SCREEN THAT ALLOWS THE COMPUTER TO DISPLAY TO THE USER. IT MAY ALSO BE CALLED A "CRT" OR MONITOR.



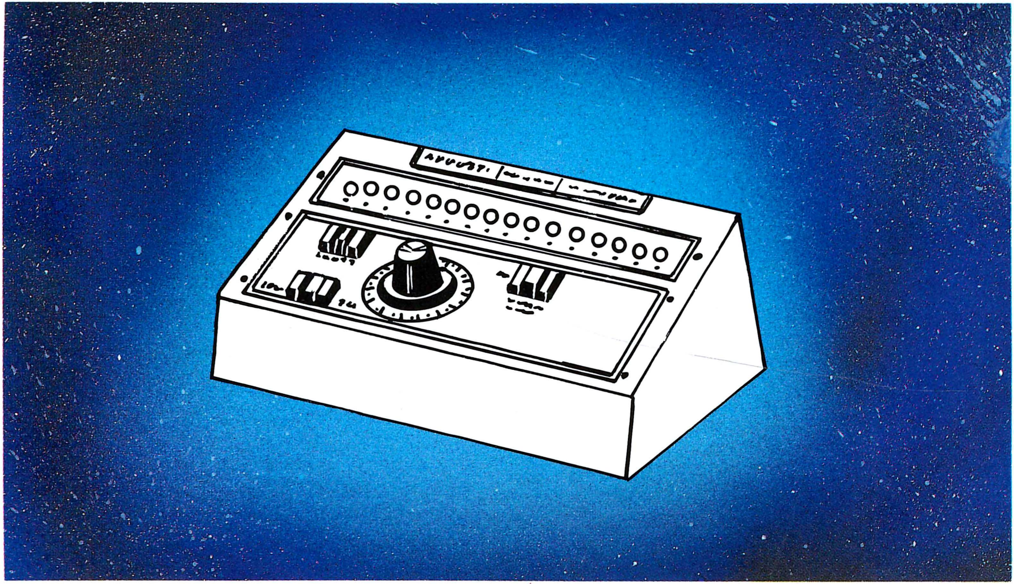
JOYSTICKS —

A JOYSTICK IS IDEAL TO MOVE AN OBJECT ACROSS THE SCREEN QUICKLY AND IS USED MOSTLY FOR VIDEO GAMES.



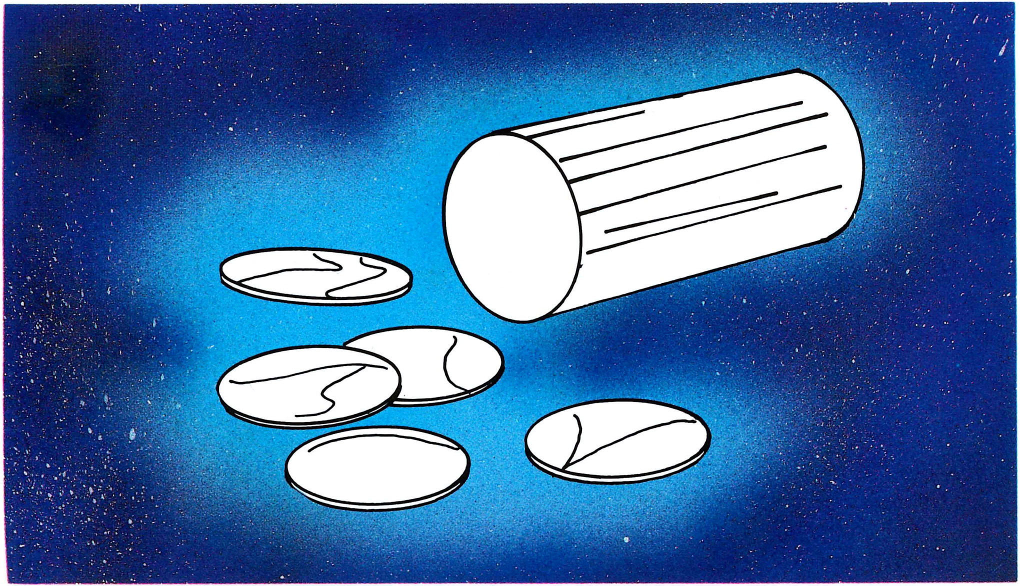
GRAPHICS PAD —

WITH A GRAPHICS PAD YOU CAN DRAW PICTURES ON THE SCREEN OF YOUR COMPUTER.



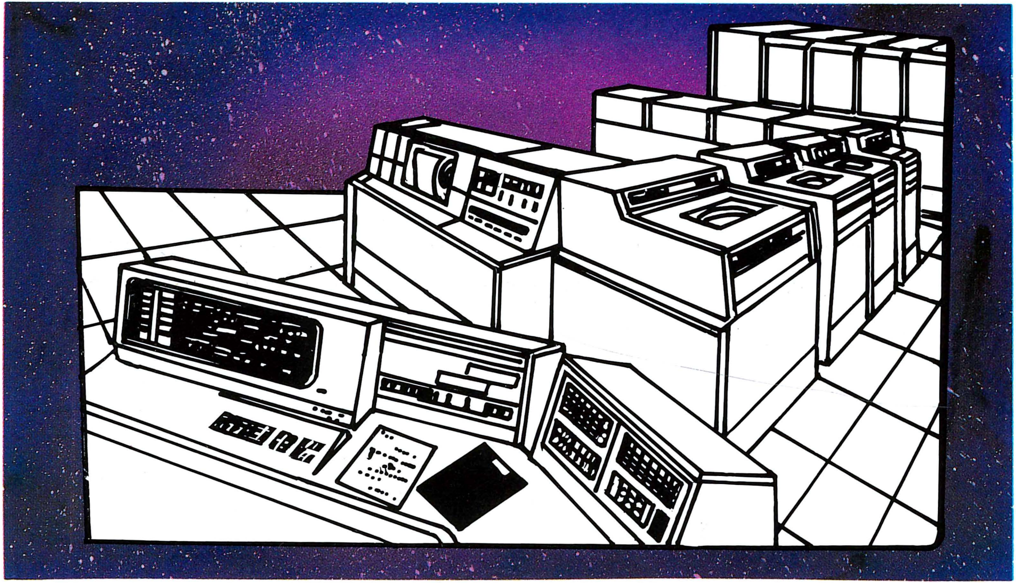
I/O CONTROLLER -

AN I/O CONTROLLER IS AN INPUT-OUTPUT DEVICE THAT REGULATES A COMPUTER SYSTEM OR SYSTEMS.



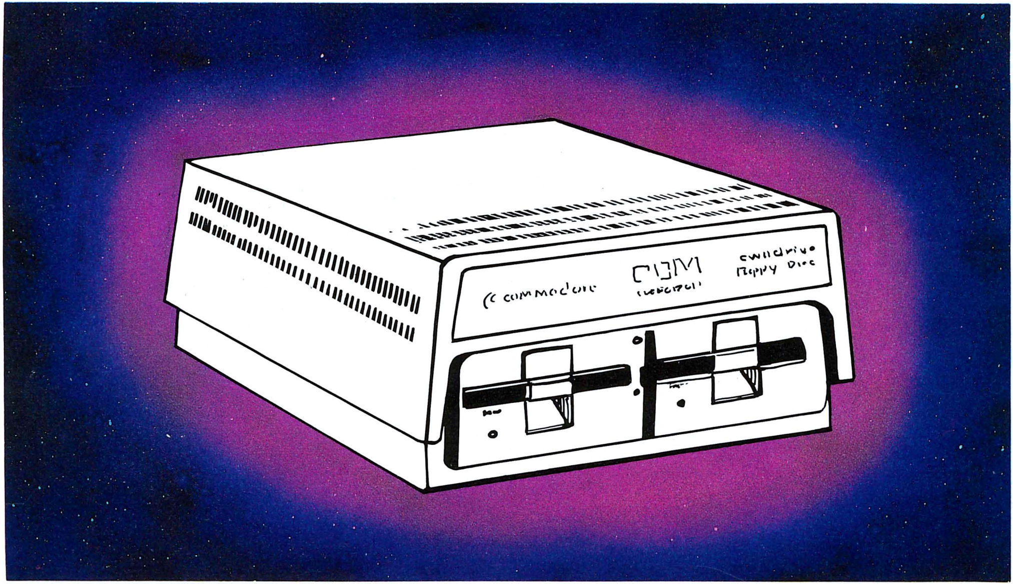
SILICON —

SLICES FROM THE SILICON CRYSTAL ARE CUT AND UP TO 500 CHIPS WILL BE MADE FROM EACH SLICE.



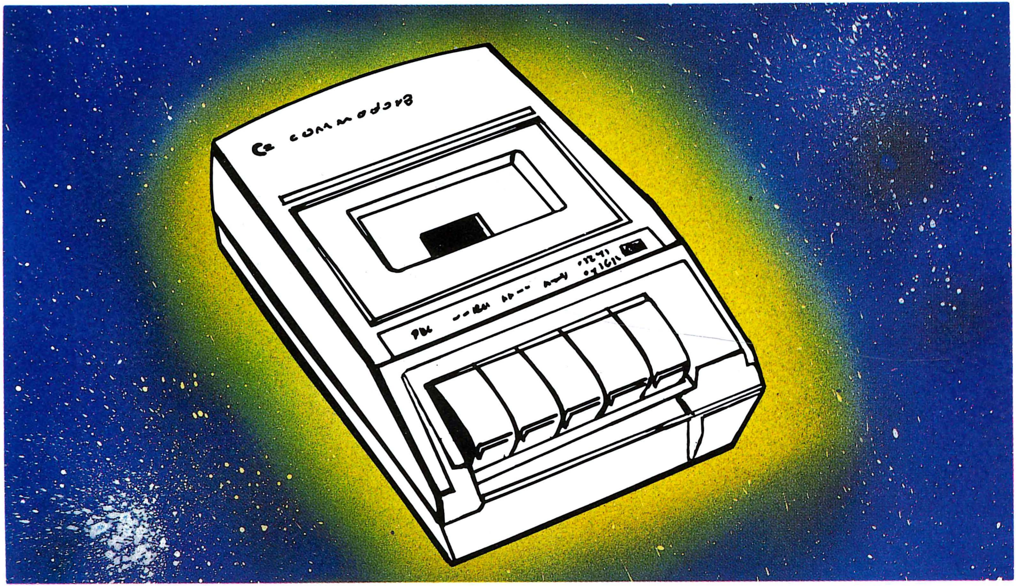
MAINFRAME -

A MODERN MAINFRAME CAN FILL SEVERAL ROOMS AND CARRY OUT MILLIONS OF INSTRUCTIONS EVERY SECOND. A MAINFRAME WORKS VERY FAST AND CAN DO MANY JOBS AT ONCE.


commodore
CBM
twindrive
floppy disc

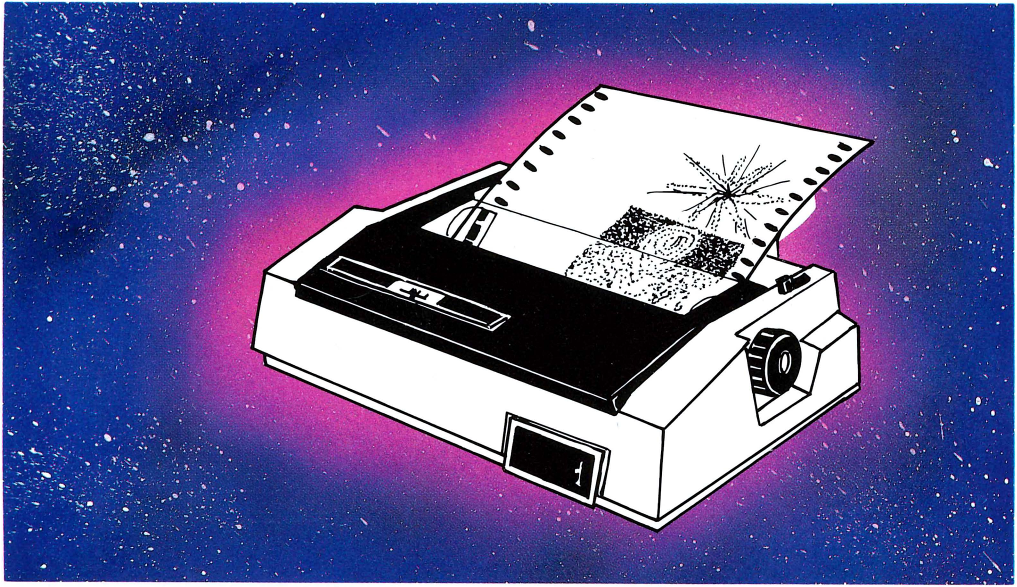
FLOPPY DISK DRIVE –

INFORMATION FOR THE COMPUTER CAN BE STORED ON FLOPPY DISKS. THE FLOPPY DISK DRIVE ENABLES THE USER TO RETRIEVE INFORMATION AND RECORD NEW INFORMATION ON TO THE FLOPPY DISK. A COMPUTER SYSTEM MAY NEED ONE OR MORE DISK DRIVES.


commodore

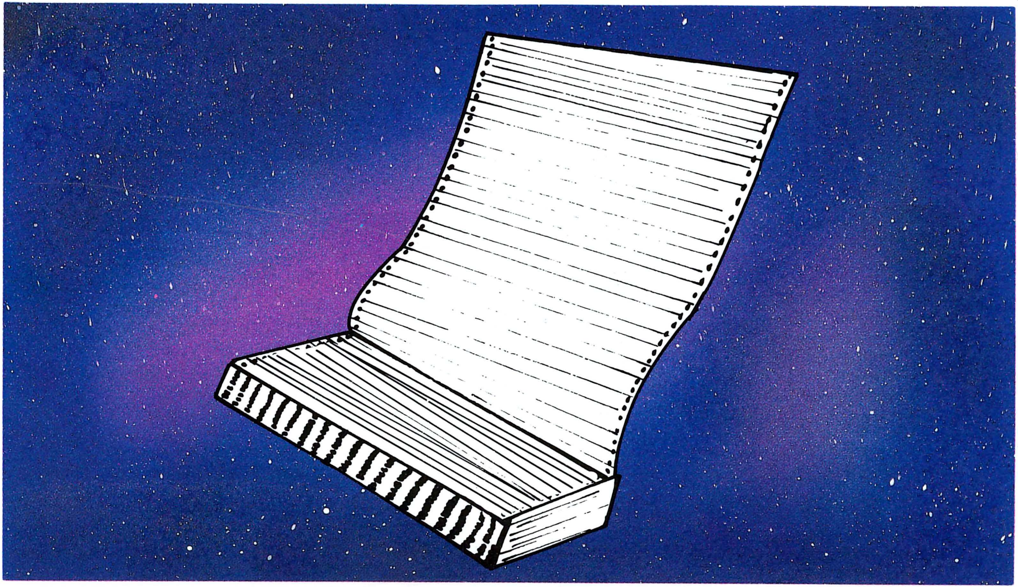
CASSETTE PLAYER —

THE INPUT-OUTPUT DEVICE THAT IS USED TO STORE AND GIVE BACK DATA TO THE COMPUTER. THIS DEVICE IS SIMILAR TO A UNIT YOU MIGHT BUY AT A SHOP TO LISTEN TO OR RECORD MUSIC.



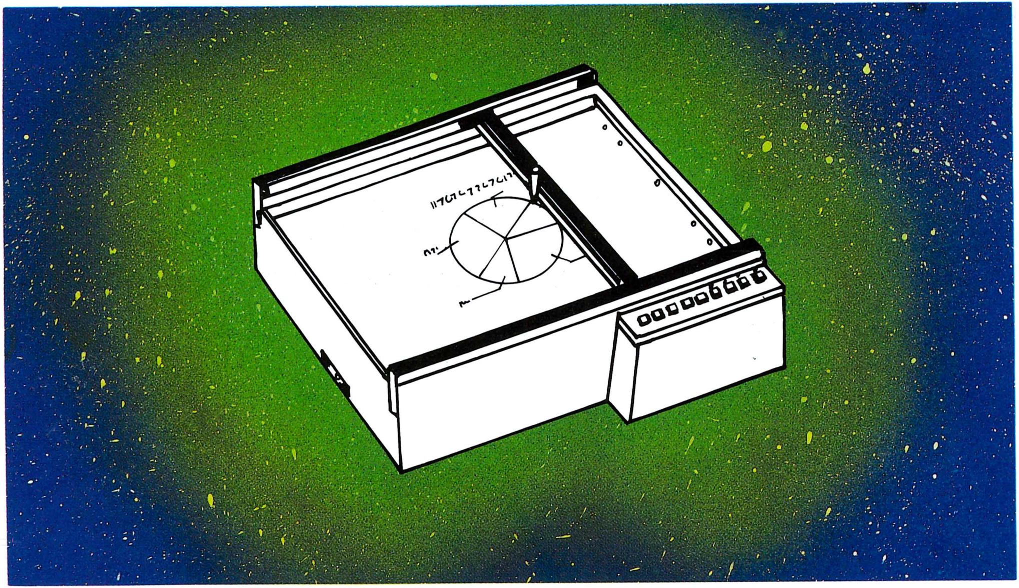
PRINTER —

A PRINTER PRINTS THE COMPUTERS OUTPUT ON TO PAPER.



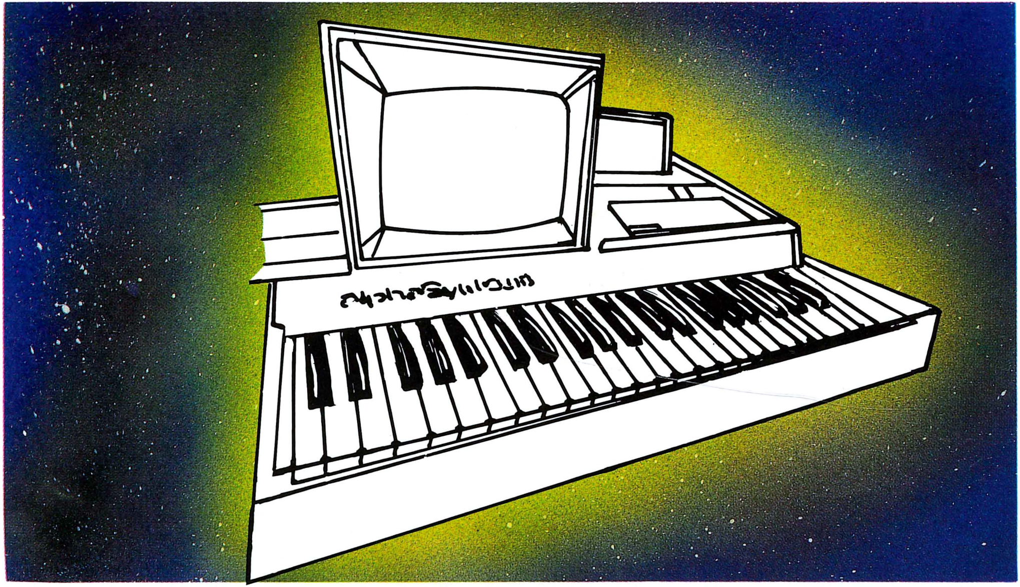
COMPUTER PRINTOUT PAPER —

THE COMPUTER PRINTOUT PAPER IS THE PAPER THAT THE COMPUTER USES TO PRINT ITS RESULTS ON TO. THIS INFORMATION IS THEN CALLED "HARDCOPY".



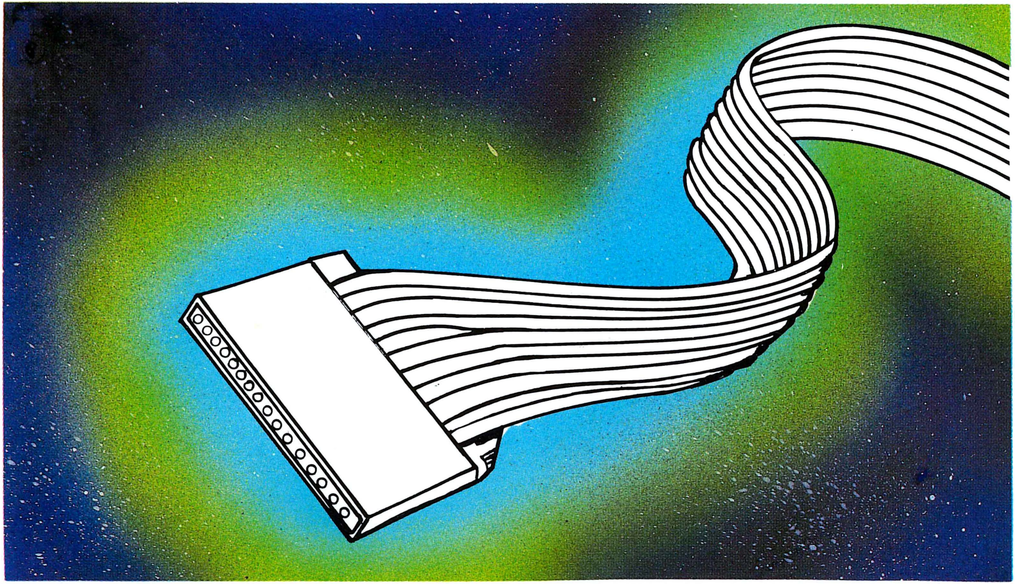
PLOTTERS —

GRAPHS, PICTURES OR WORDS CAN BE DRAWN ON A PLOTTER AS DIRECTED BY THE COMPUTER.



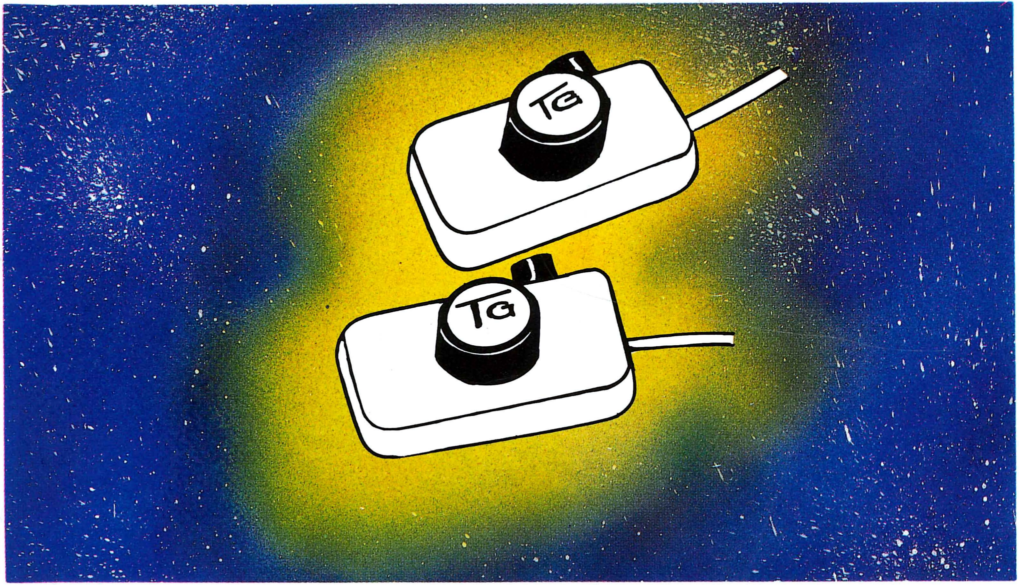
MUSIC SYNTHESIZER —

A MICROCOMPUTER CAN BE PROGRAMMED TO PLAY MUSIC WITH THE ADDITION OF A MUSIC SYNTHESIZER.



RIBBON CABLE —

A FLAT BELT LIKE CONNECTOR, USED TO TRANSFER ELECTRICITY BETWEEN THE COMPUTER AND THE INPUT-OUTPUT DEVICES.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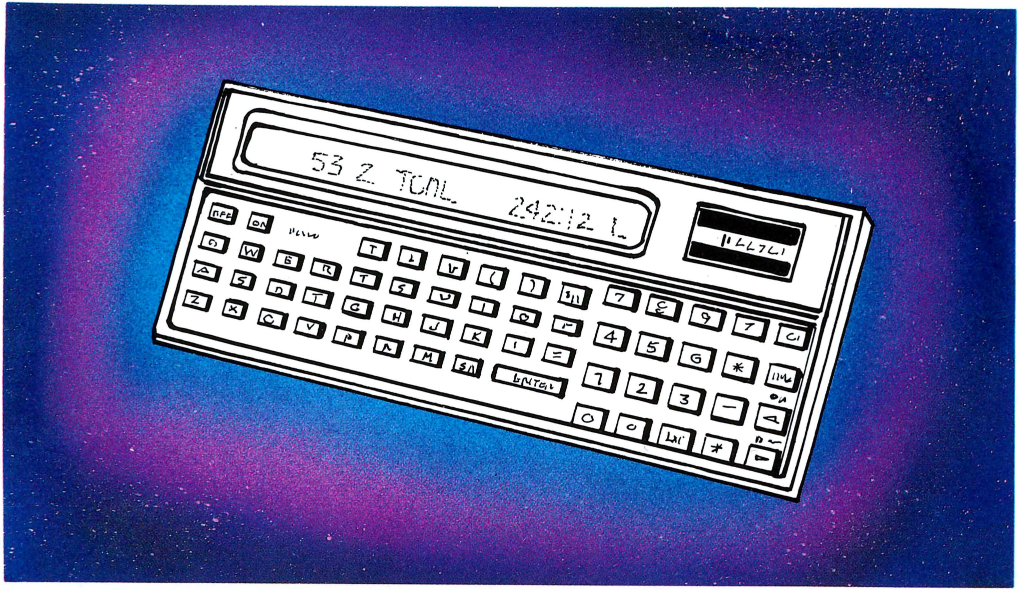
GAME PADDLES -

GAME PADDLES ARE AN INPUT DEVICE SIMILAR TO THE JOYSTICK. THEY ARE USED PRIMARILY FOR GAMES IN ORDER TO MOVE OBJECTS AROUND THE SCREEN.


53 Z TCAL 242:12 L
OFF
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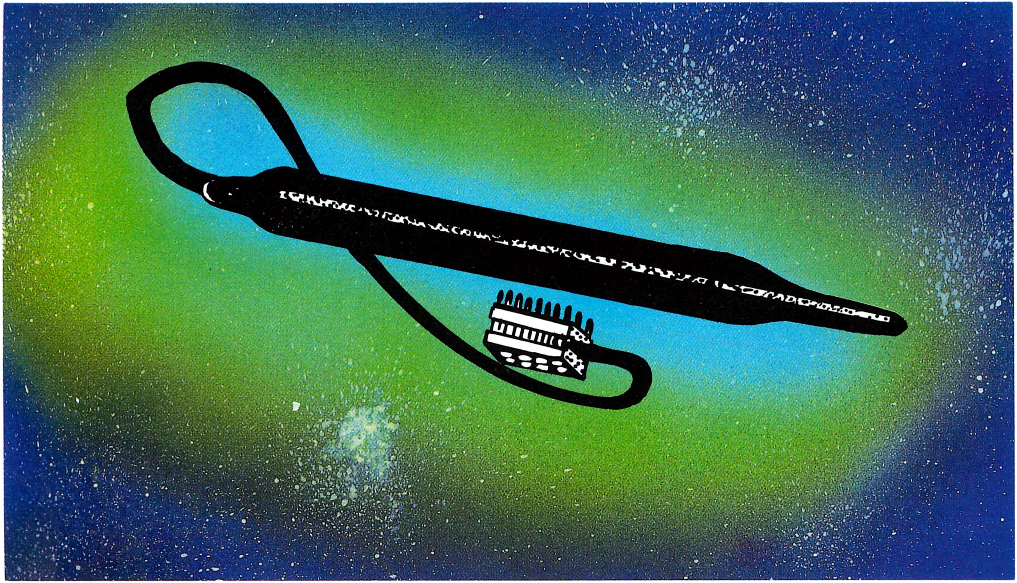
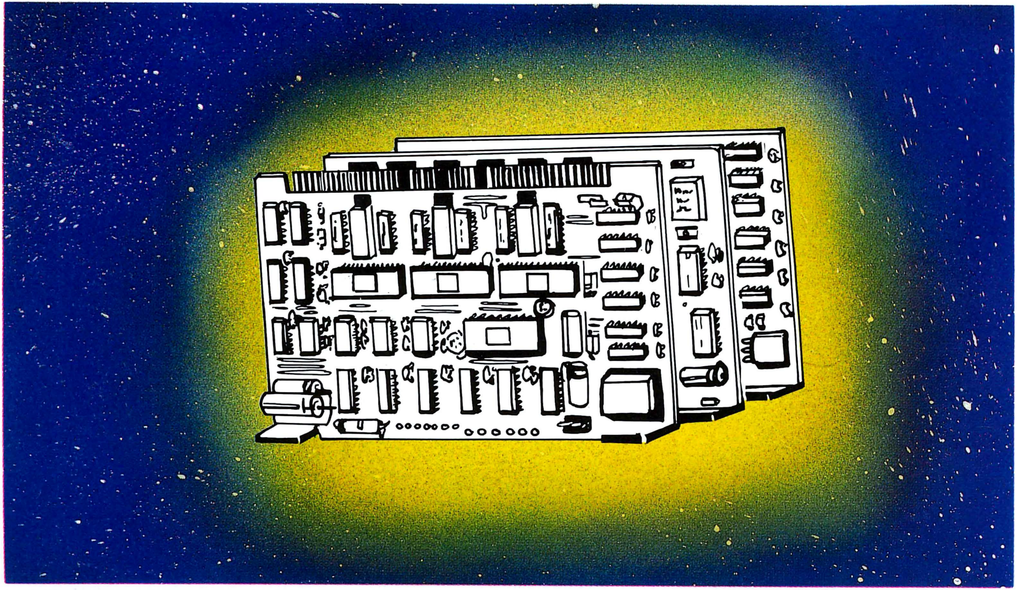
POCKET COMPUTERS –

POCKET COMPUTERS HAVE BEEN DEVELOPED THAT ARE COMPLETE, PORTABLE AND HIGHLY VERSATILE COMPUTER SYSTEMS.



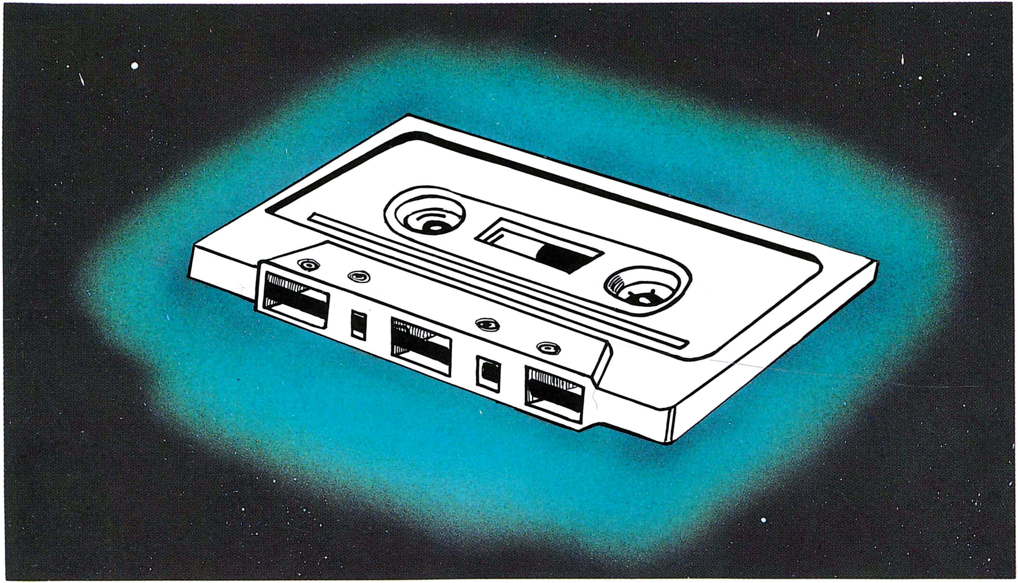
LIGHTPEN —

A LIGHTPEN IS USED TO POINT AT SPECIFIC LOCATIONS ON A COMPUTER SCREEN AND TO DRAW OR SELECT CORRECT ANSWERS.



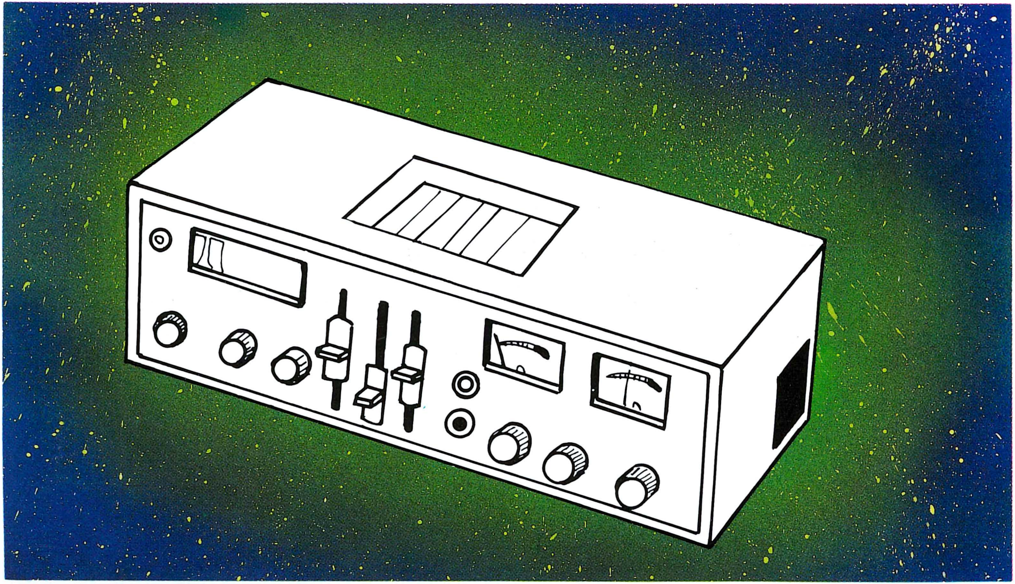
PRINTED CIRCUIT BOARDS -

THE CHIPS FOR EACH PART OF THE COMPUTER ARE MOUNTED ON BOARDS CALLED PRINTED CIRCUIT BOARDS.



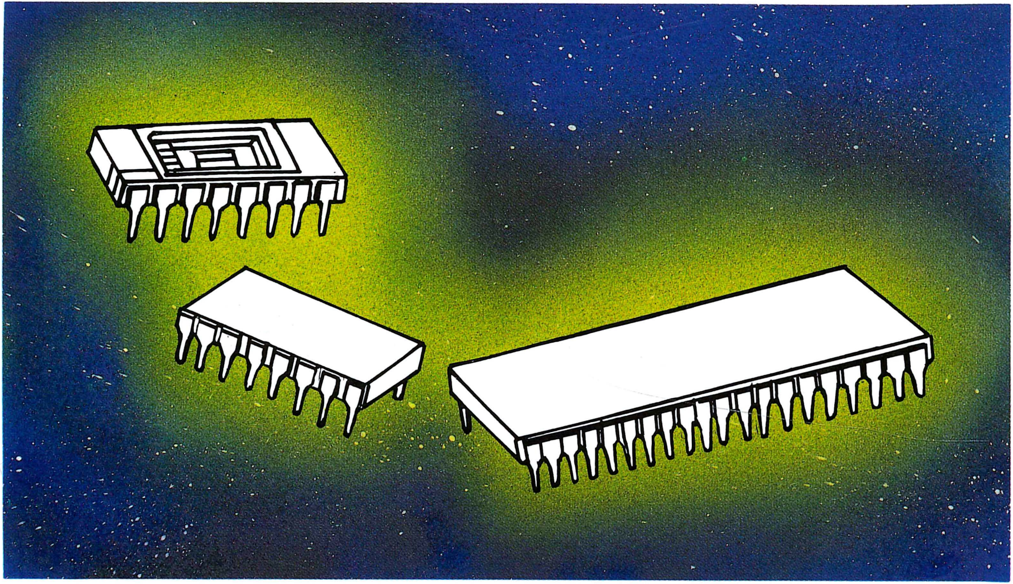
CASSETTE TAPE –

MICROCOMPUTERS CAN STORE INFORMATION ON THE MAGNETIC TAPE IN A CASSETTE.



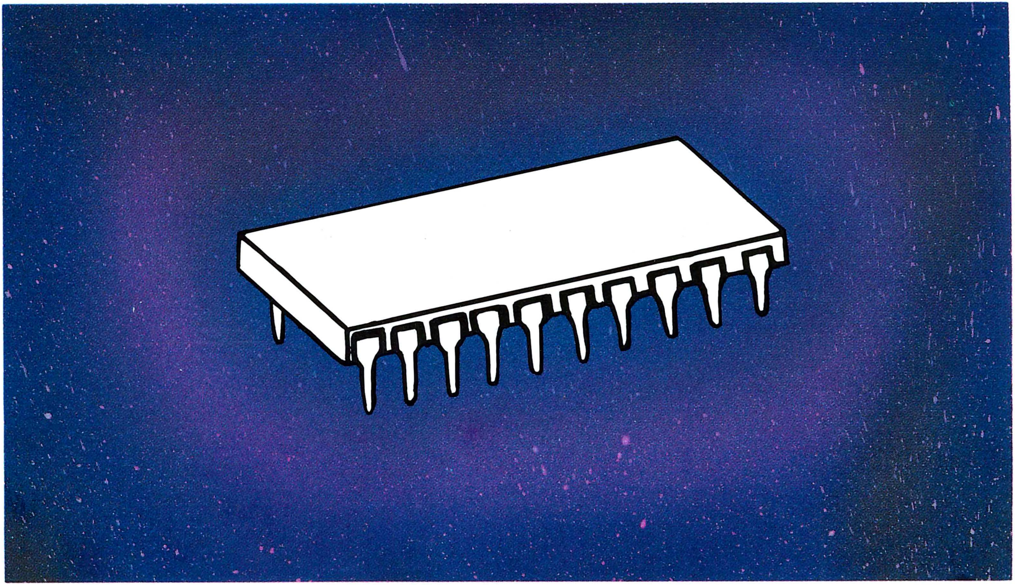
SPEECH SYNTHESIZER —

A COMPUTER CAN PUT SOUNDS TOGETHER TO MAKE WORDS WITH A SPEECH SYNTHESIZER. IT IS EASIER FOR A COMPUTER TO "TALK" THAN FOR IT TO RECOGNIZE SPOKEN WORDS.



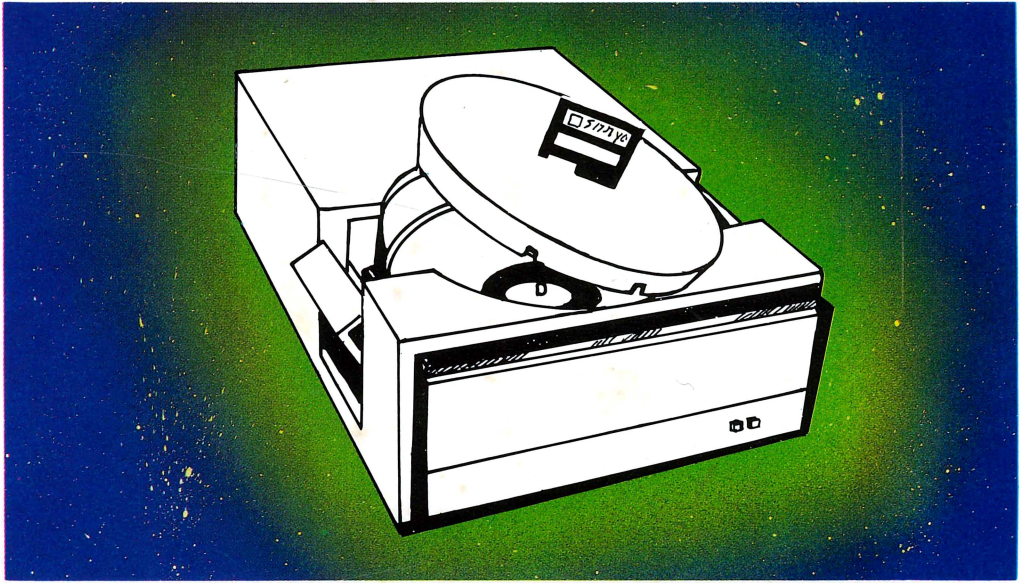
DIFFERENT KINDS OF CHIPS -

THERE ARE MANY DIFFERENT KINDS OF CHIPS AND EACH HAS CIRCUITS SPECIALLY DESIGNED TO DO A CERTAIN JOB.



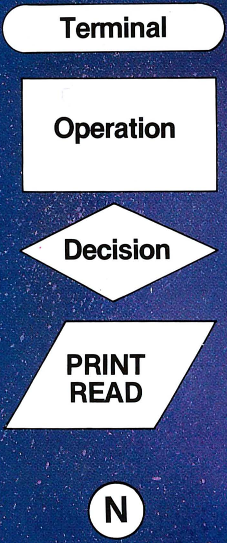
DIP (DUAL INLINE PACKAGE) —

A CHIP IS PUT INTO A PLASTIC OR CERAMIC CASE CALLED A DIP. THIS MAKES THE CHIP EASIER TO HANDLE AND FIT INTO THE COMPUTER.



RIGID DISK DRIVE —

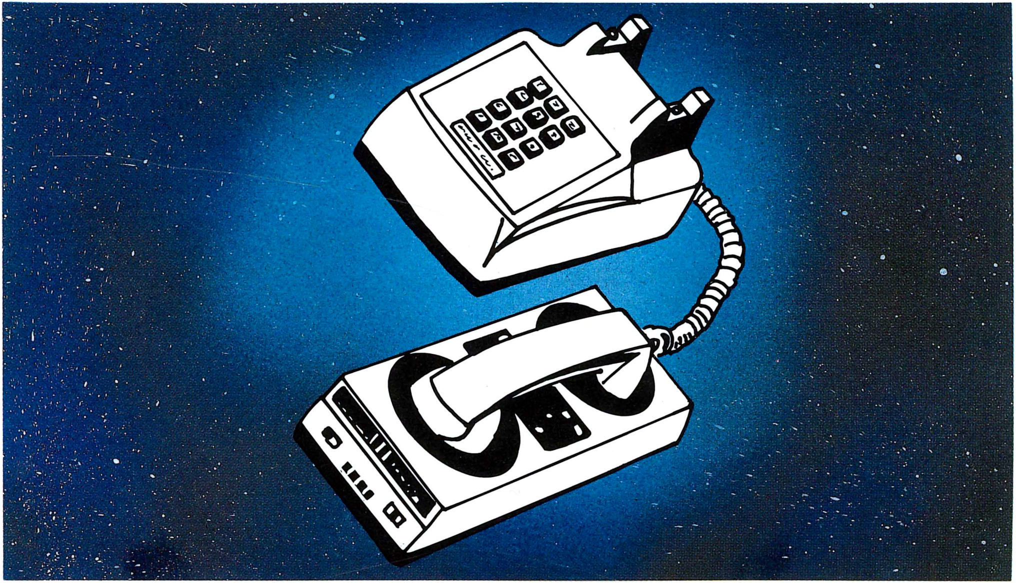
A RIGID DISK DRIVE IS USED TO READ AND RECORD INFORMATION ON TO A RIGID DISK.



Terminal	Used for beginning and ending of programs.
Operation	Indicates that a computation is to be performed.
Decision	Shows that a question is being asked and a decision is being made.
PRINT READ	Indicates that results are to be printed and will also be used to indicate the READ statement.
N	Small circle shows that we are going to transfer to another statement in the program. N will match another small circle in the same chart.

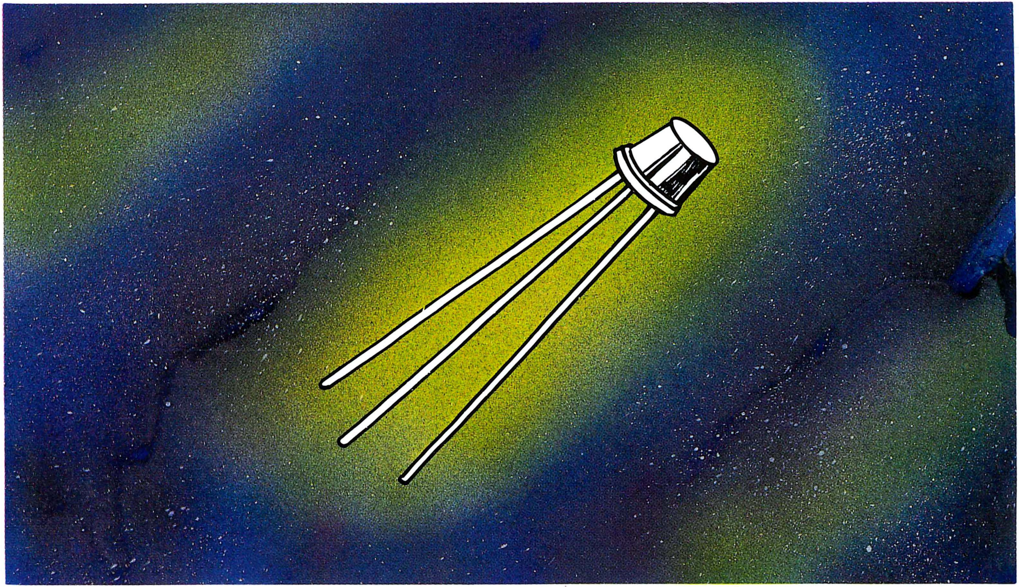
FLOWCHART SYMBOLS –

FLOWCHARTING IS USEFUL IN PLANNING PROGRAMS IN ANY COMPUTER LANGUAGE. IN A FLOWCHART DIFFERENT SHAPES ARE USED TO INDICATE DIFFERENT FUNCTIONS.



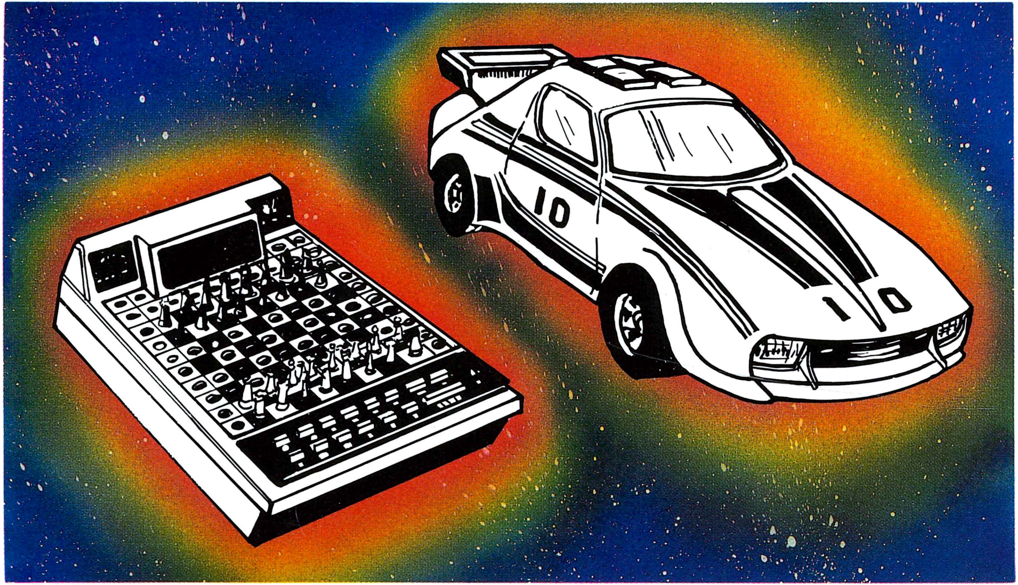
MODEM —

A MODEM IS A DEVICE USED TO SEND OR RECEIVE INFORMATION OVER THE TELEPHONE LINES.



TRANSISTOR —

A VERY TINY ELECTRONIC DEVICE MADE BY ATTACHING THREE OR MORE WIRES TO A PIECE OF SILICON. THOUSANDS OF MINUTE TRANSISTORS LINKED TOGETHER MAKE PATHS CALLED CIRCUITS THROUGH WHICH ELECTRICAL CURRENT CAN PASS.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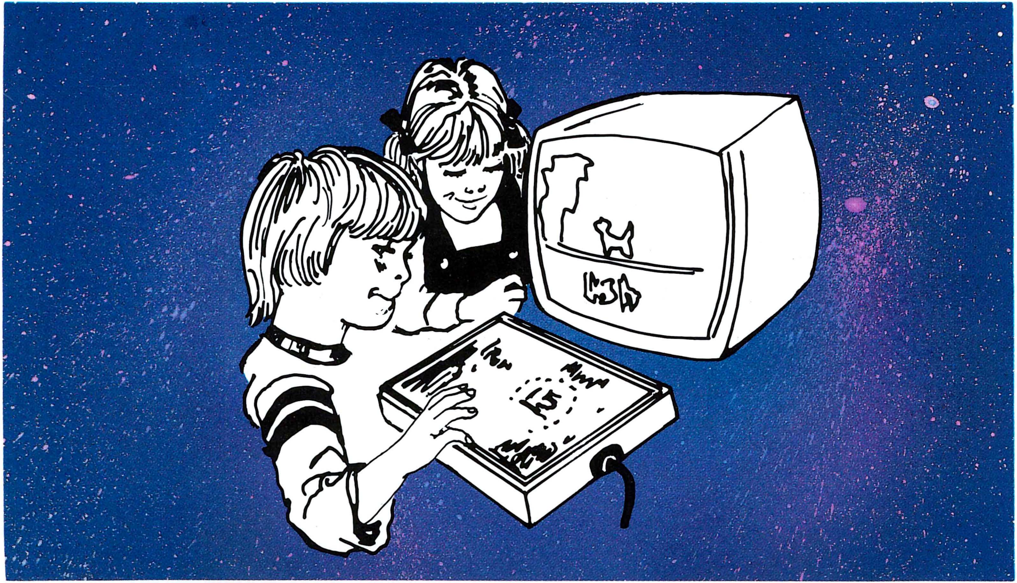
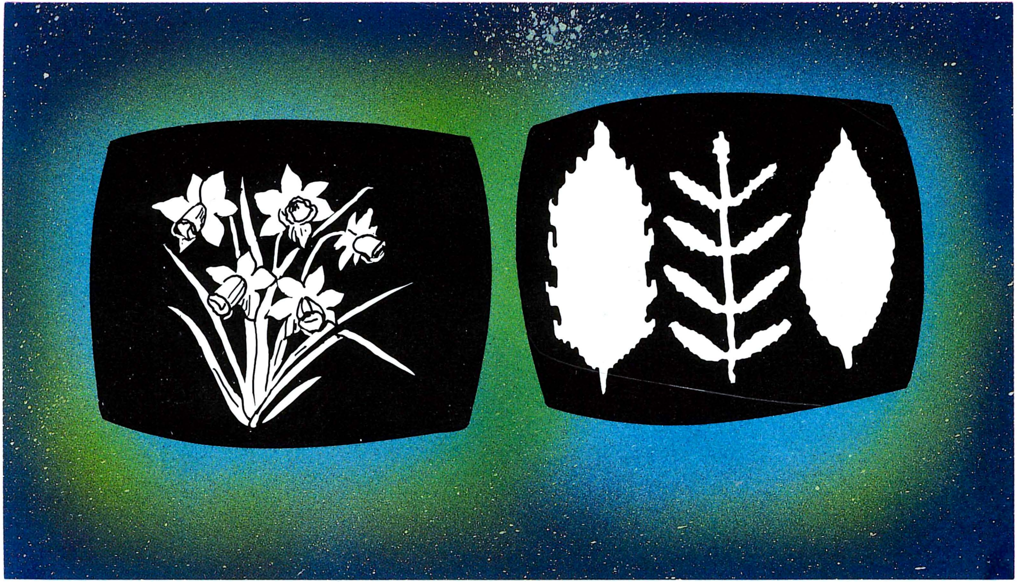
COMPUTER TOYS -

MANY TOYS TODAY HAVE HIDDEN COMPUTERS.


15

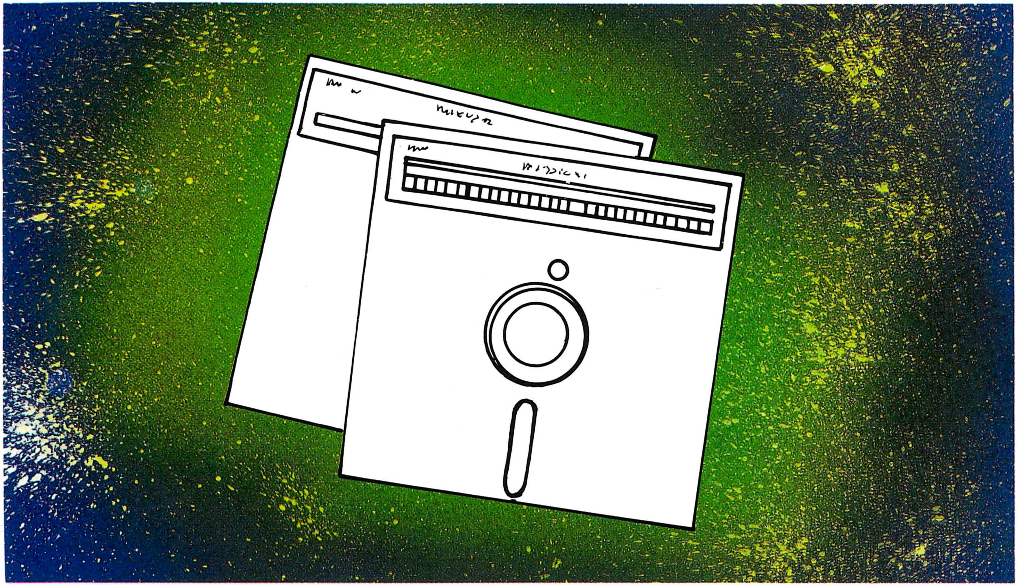
SENSITIVE BOARD —

THE COMPUTER CAN BE USED IN SCHOOLS AS A TEACHING AID. USING A SENSITIVE BOARD STUDENTS CAN ANSWER THE COMPUTERS QUESTIONS BY TOUCHING NEAR THE WORD OR PICTURE THEY THINK IS CORRECT.



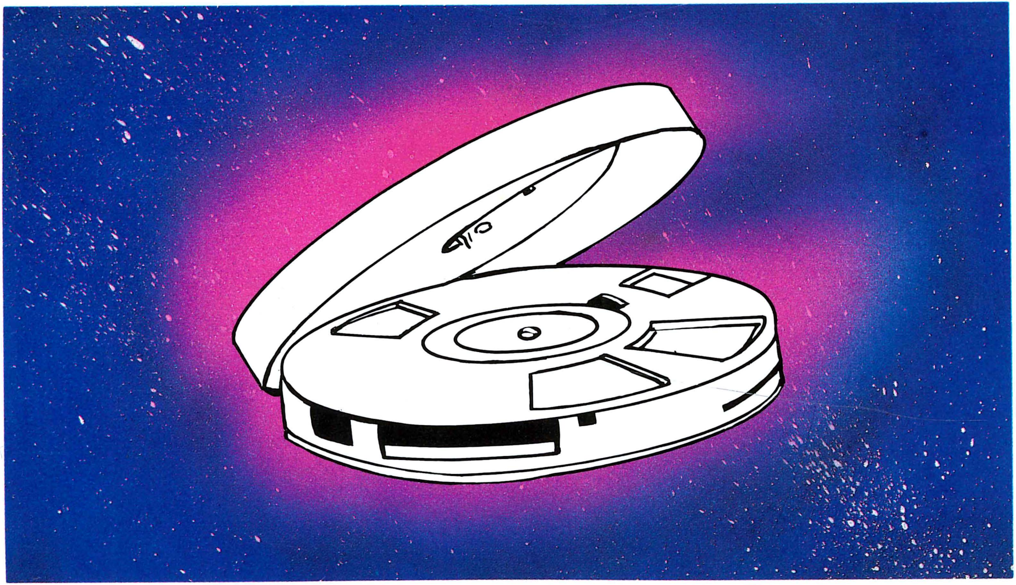
GRAPHICS -

GRAPHICS ARE PICTURES COMPUTERS CAN PRODUCE ON THE VISUAL DISPLAY SCREEN. THERE ARE HIGH RESOLUTION AND LOW RESOLUTION GRAPHICS. HIGH RESOLUTION GRAPHICS ARE REALISTIC PICTURES AND LOW RESOLUTION GRAPHICS ARE LESS CLEARLY DEFINED.



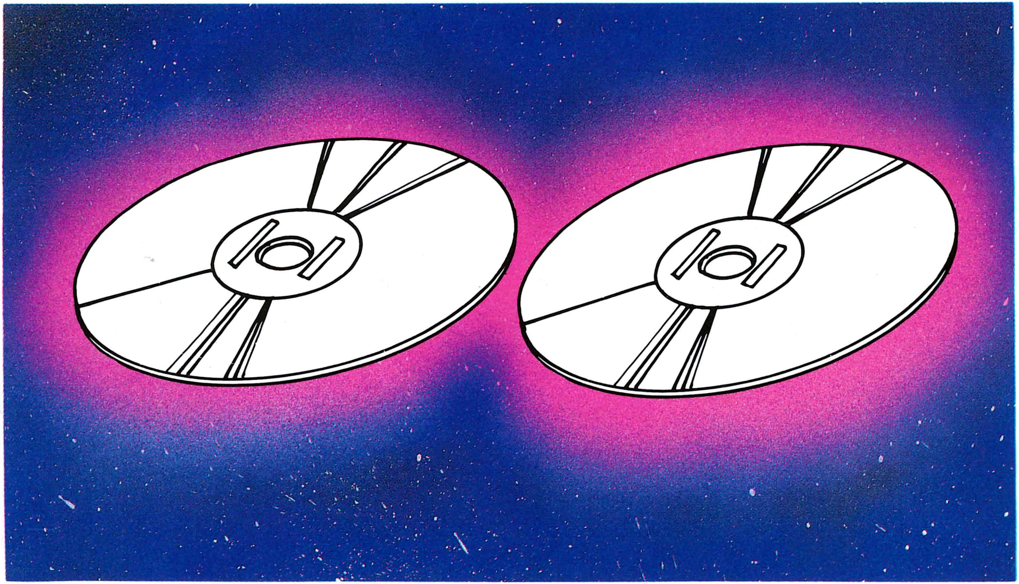
FLOPPY DISKS —

FLOPPY DISKS ARE FLEXIBLE PLASTIC DISKS WITH MAGNETICALLY SENSITIVE SURFACES. BECAUSE THE DISKS ARE FLOPPY THEY ARE HOUSED INSIDE CARDBOARD ENVELOPES. PROGRAMS FOR COMPUTERS CAN BE STORED ON FLOPPY DISKS.



RIGID DISKS —

BIG COMPUTERS SYSTEMS USE LARGE REMOVABLE RIGID DISKS THAT COME IN A VARIETY OF SIZES AND STORE LARGE AMOUNTS OF INFORMATION.



HARD DISKS –

A MAGNETIC STORAGE DEVICE SIMILAR TO A FLOPPY DISK EXCEPT THAT A HARD DISK IS MADE FROM A RIGID PLASTIC AND HAS A GREATER STORAGE CAPACITY.